INDUCED ABORTION

GLOBAL PERSPECTIVE, DEVELOPMENTS AND FUTURE RESEARCH

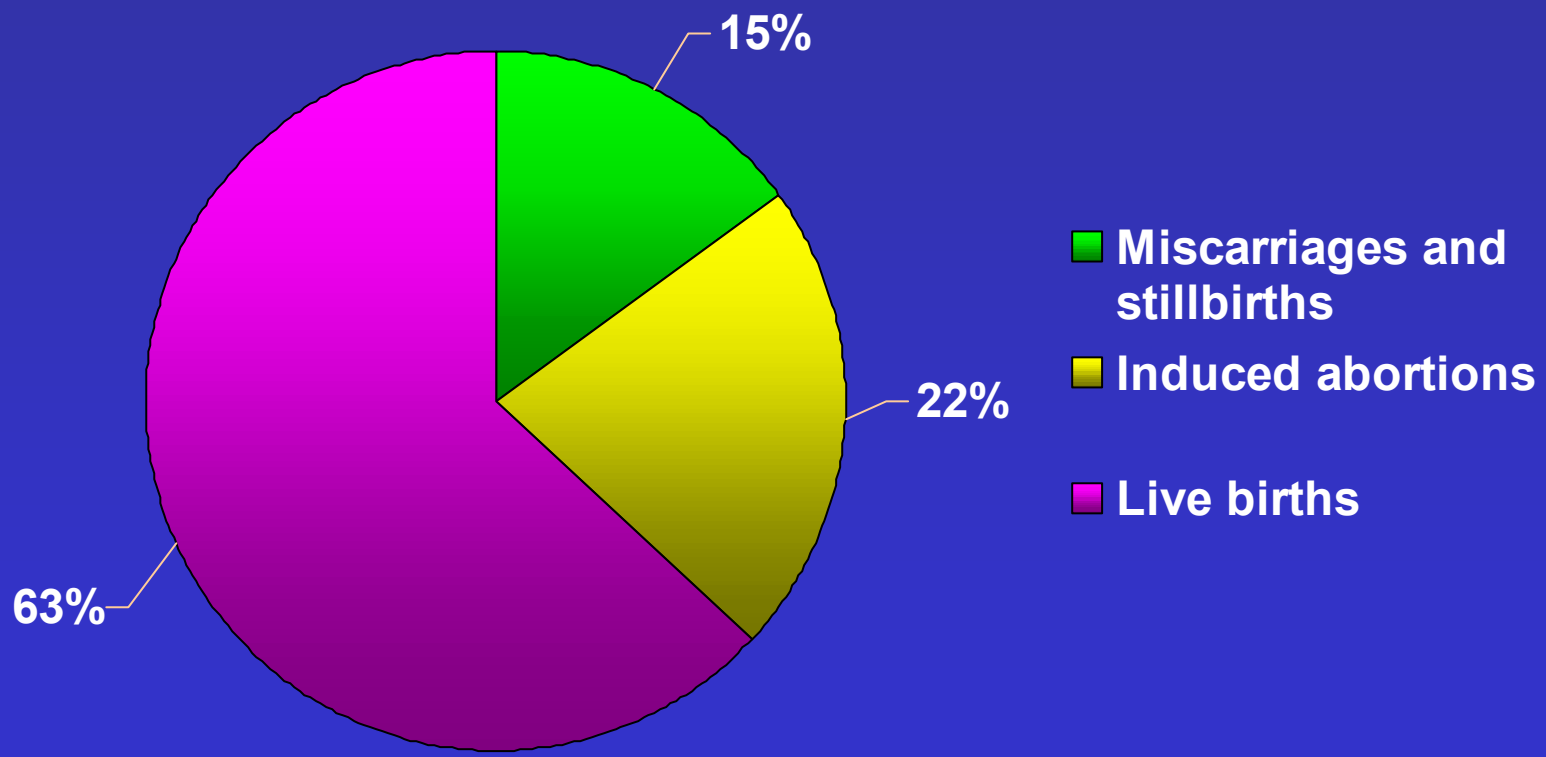
Helena von Hertzen

UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction

World Health Organization
Geneva, Switzerland

INCIDENCE OF ABORTION WORLDWIDE

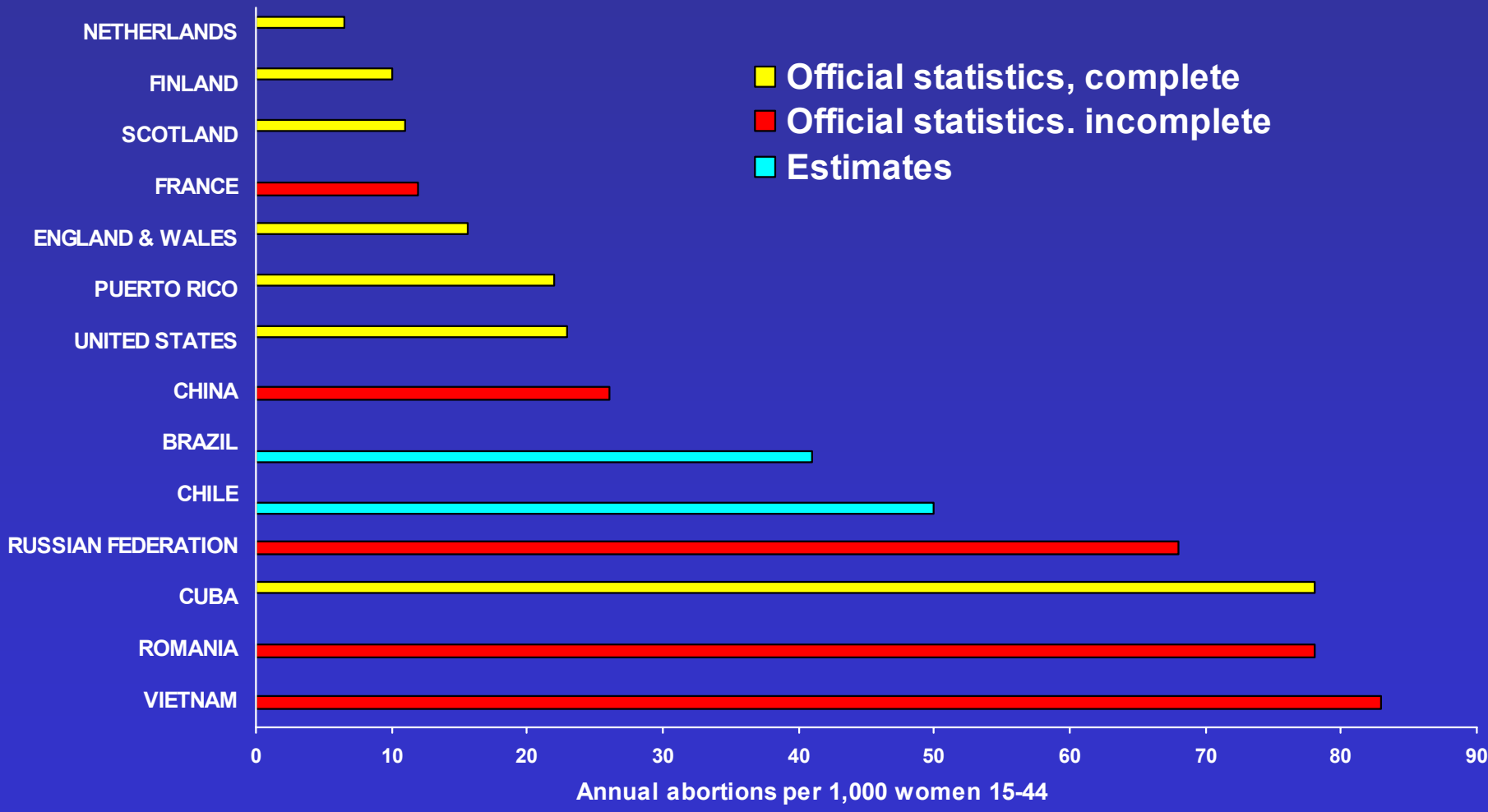
210 million pregnancies, 1999 (projected)



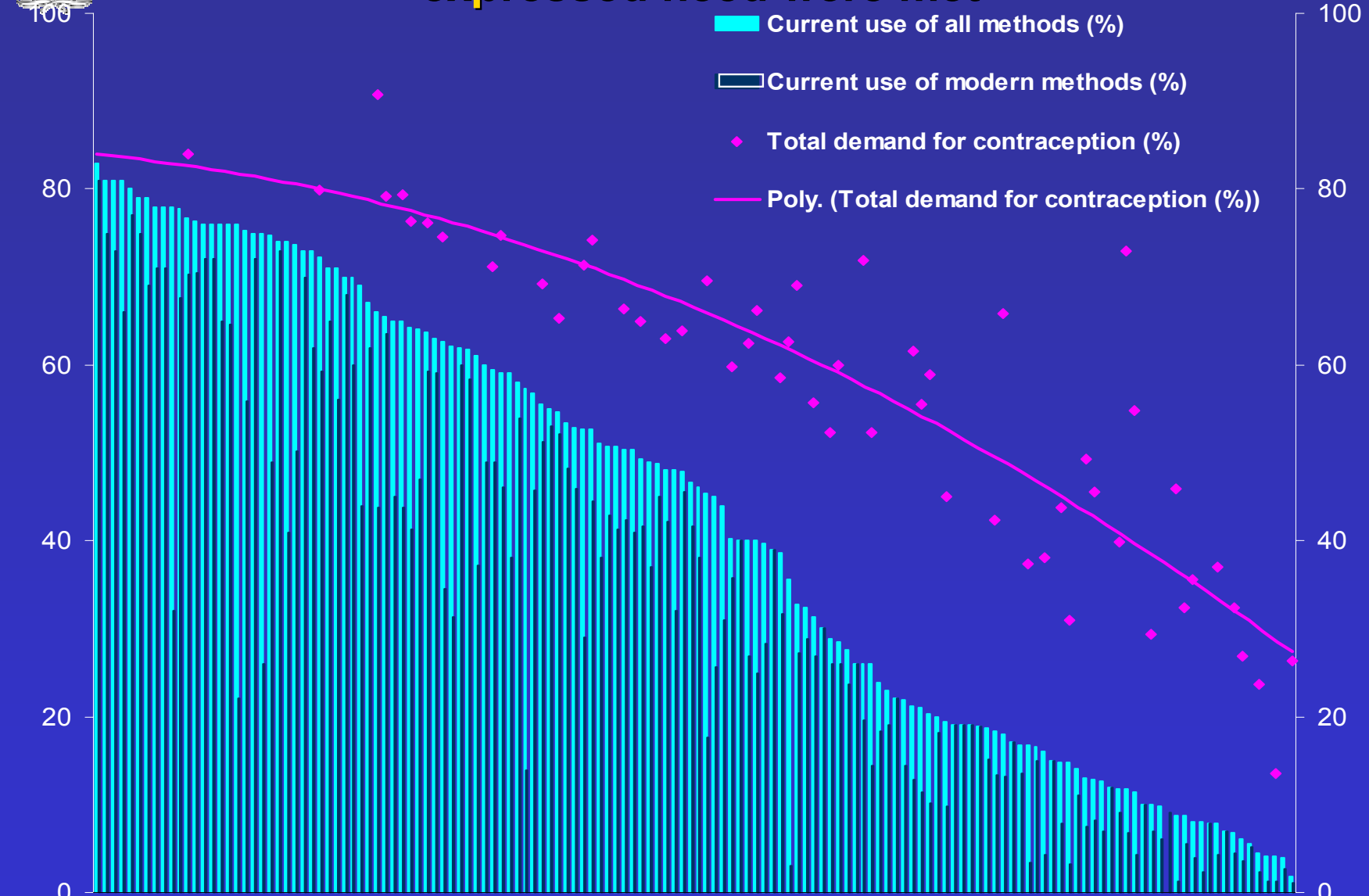
Estimated number of induced abortions, by legal status, percentage of all abortions that are illegal, 1995

Region	No of abortions (millions)			% illegal
	Total	Legal	Illegal	
Total	**45.5**	**25.6**	**19.9**	**44**
Developed regions	**10.0**	**9.1**	**0.9**	**9**
Excluding Eastern Europe	3.8	3.7	0.3	3
Developing regions	**35.5**	**16.5**	**19.0**	**54**
Excluding China	24.9	5.9	19.0	76
Africa	**5.0**	**N.S.**	**5.0**	**99**
Asia	**26.8**	**16.9**	**9.9**	**37**
Europe	**7.7**	**6.8**	**0.9**	**12**
Eastern Europe	6.2	5.4	0.8	13
Latin America	**4.2**	**0.2**	**4.0**	**95**
Northern America	**1.5**	**1.5**	**N.S.**	**N.S.**

ABORTION RATES VARY ENORMOUSLY BY COUNTRY



Current use of contraception and potential use if expressed need were met



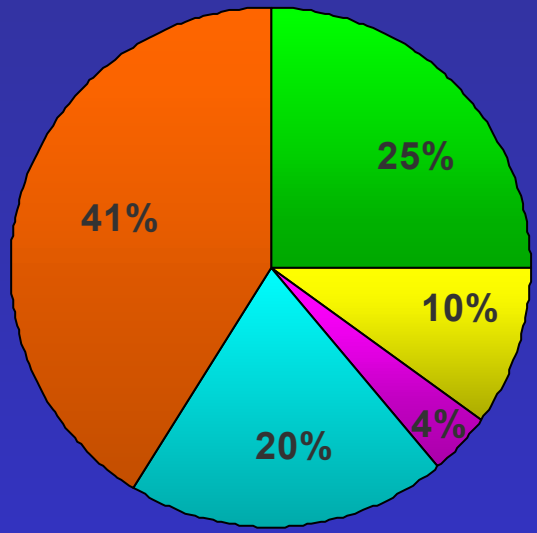
Accidental Pregnancies Resulting from Contraceptive Failure Worldwide

Method	Estimated failure rate %	Number of users (millions)	Number of accidental pregnancies (thousands)
Sterilization	0.2-1.0	155	310-1,550
Injectable	0.3-1.0	6	20-60
Intrauterine device	1-5	80	800-4,000
Oral contraceptive	1-8	55	550-4,400
Vaginal	4-24	6	240-1,400
Rhythm	10-30	16	1,600-4,800
Other traditional	10-20	42	4,200-8,400
Total		398	8,860-30,310

(Source: Segal and LaGuardia, 1990)

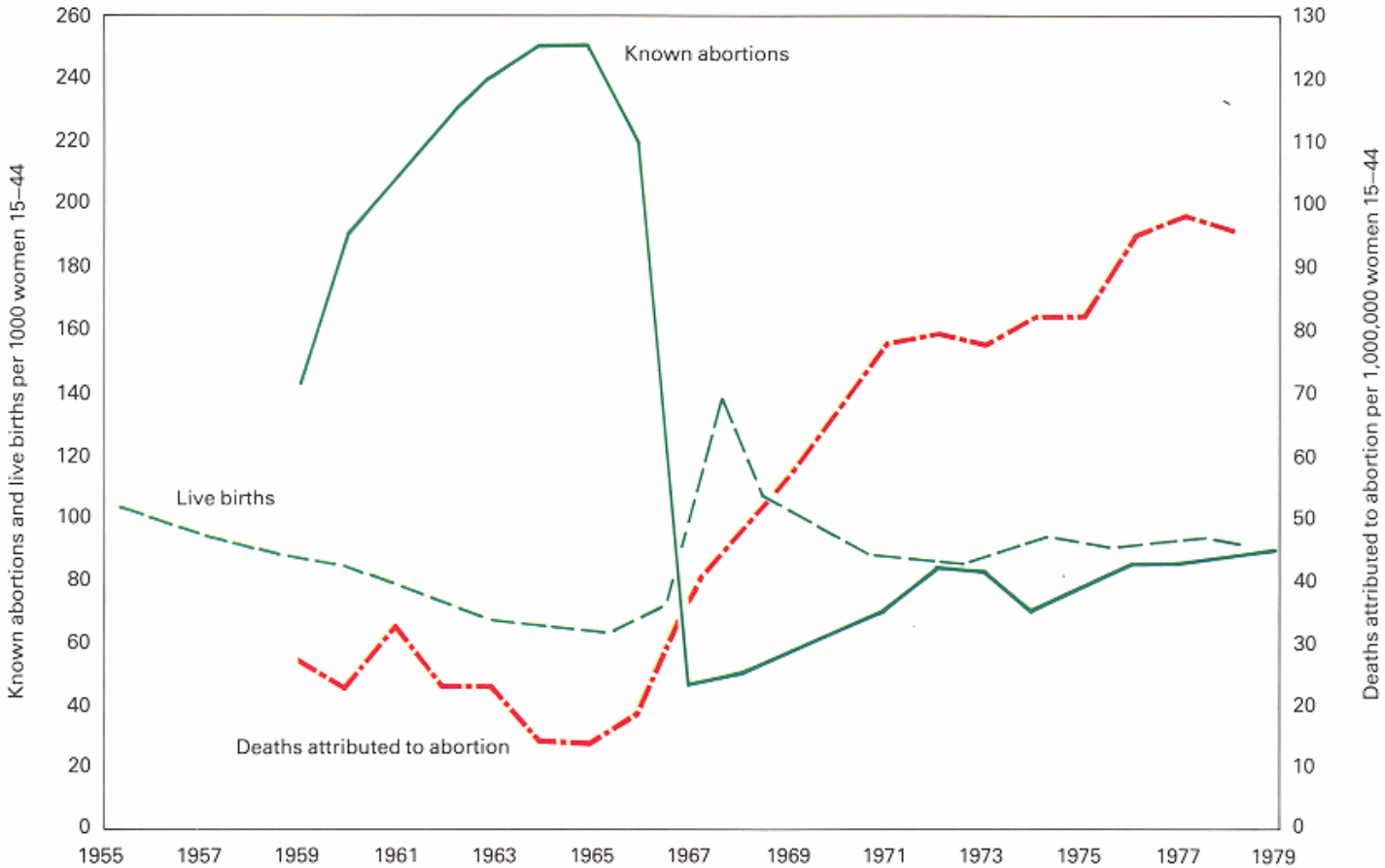
ABORTION IN LAW

1.38 billion women 15-44, 1999 (projected)



- Only to save a woman's life or not permitted on any grounds
- To protect a woman's life or physical health
- All of the above plus to protect mental health
- All of the above plus socioeconomic grounds
- Without restriction as to reason

Known abortions and live births per 1000 women, and deaths attributed to abortion per 1,000,000 women, aged 15-44, Romania, 1955-79

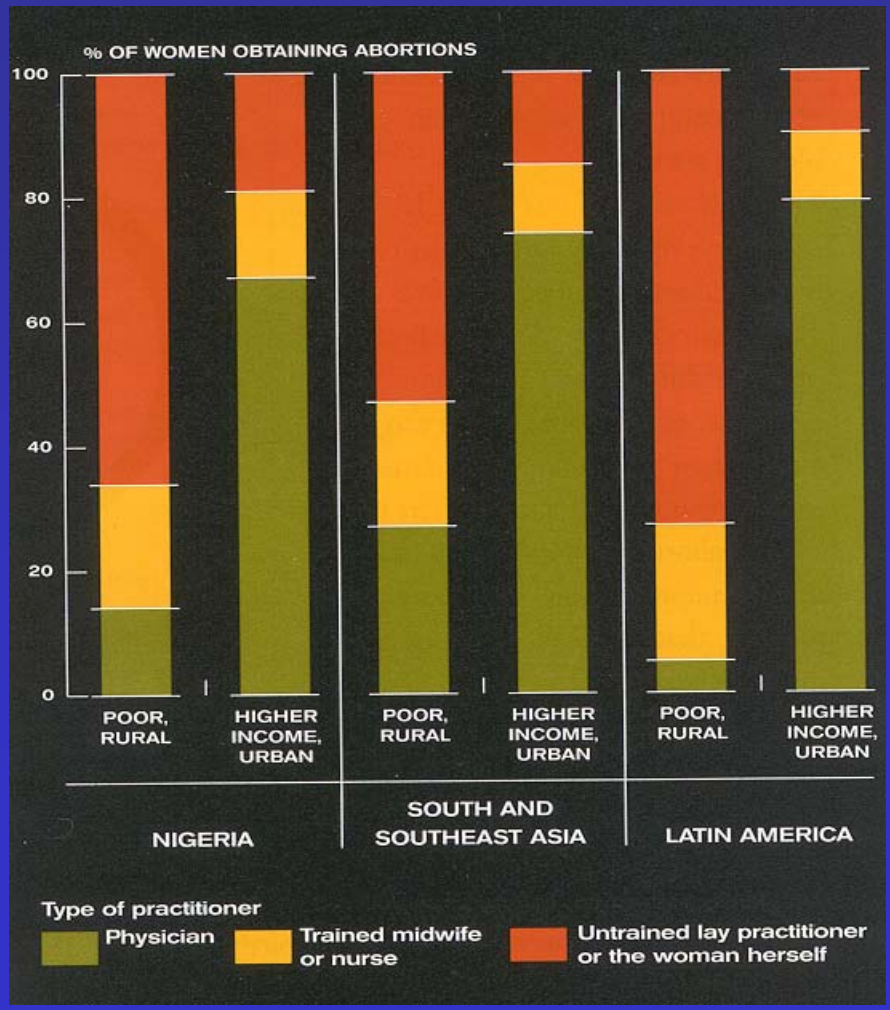


NOTE: Known abortions defined as legally induced abortions plus women admitted to hospitals for aftercare or treatment of complications of spontaneous or illegally induced abortions.

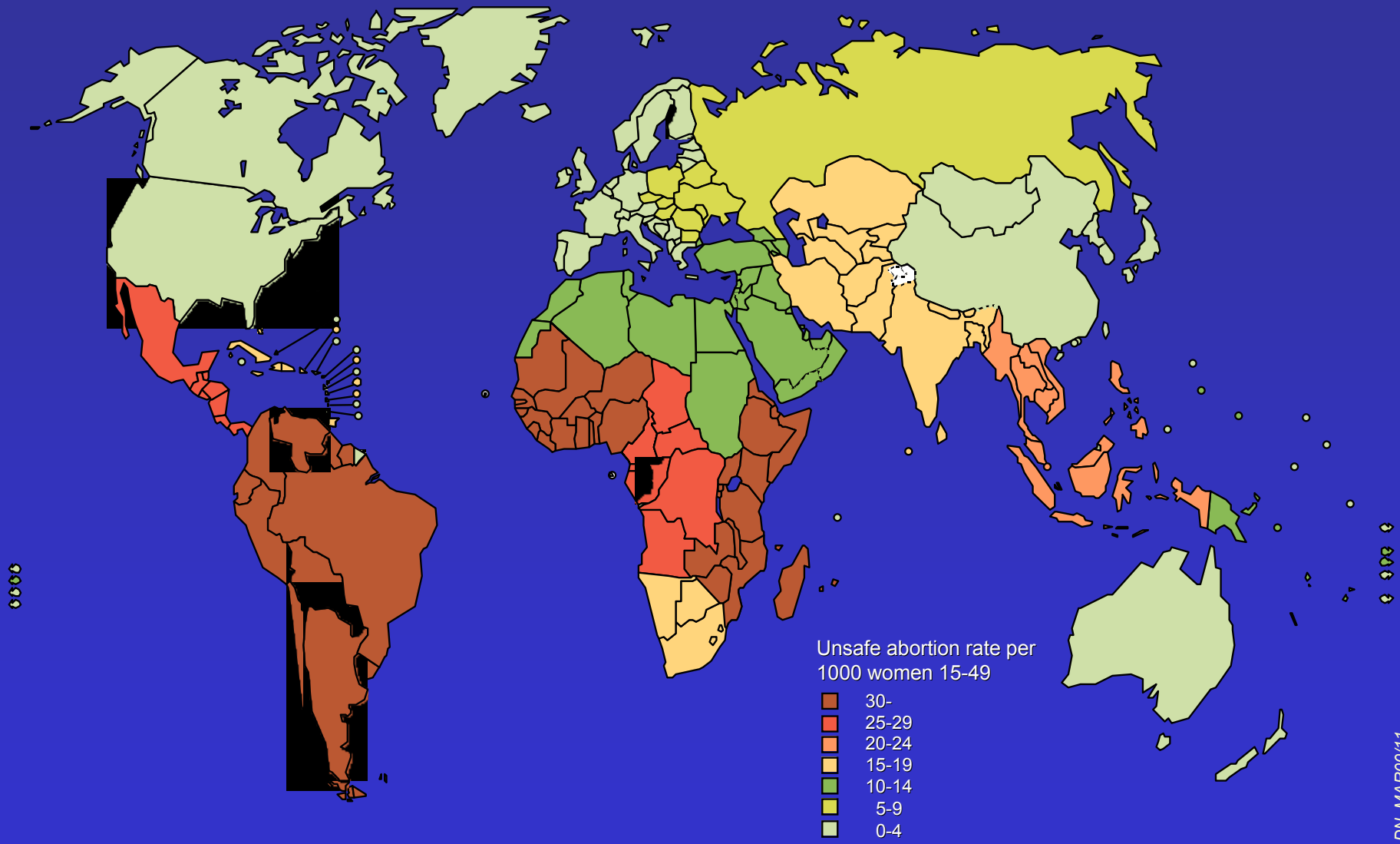
Issues related to access to abortion

- The law and its enforcement
- Attitudes of providers/medical practitioners
- Religious and moral teachings
- Public opinion
- Availability of services

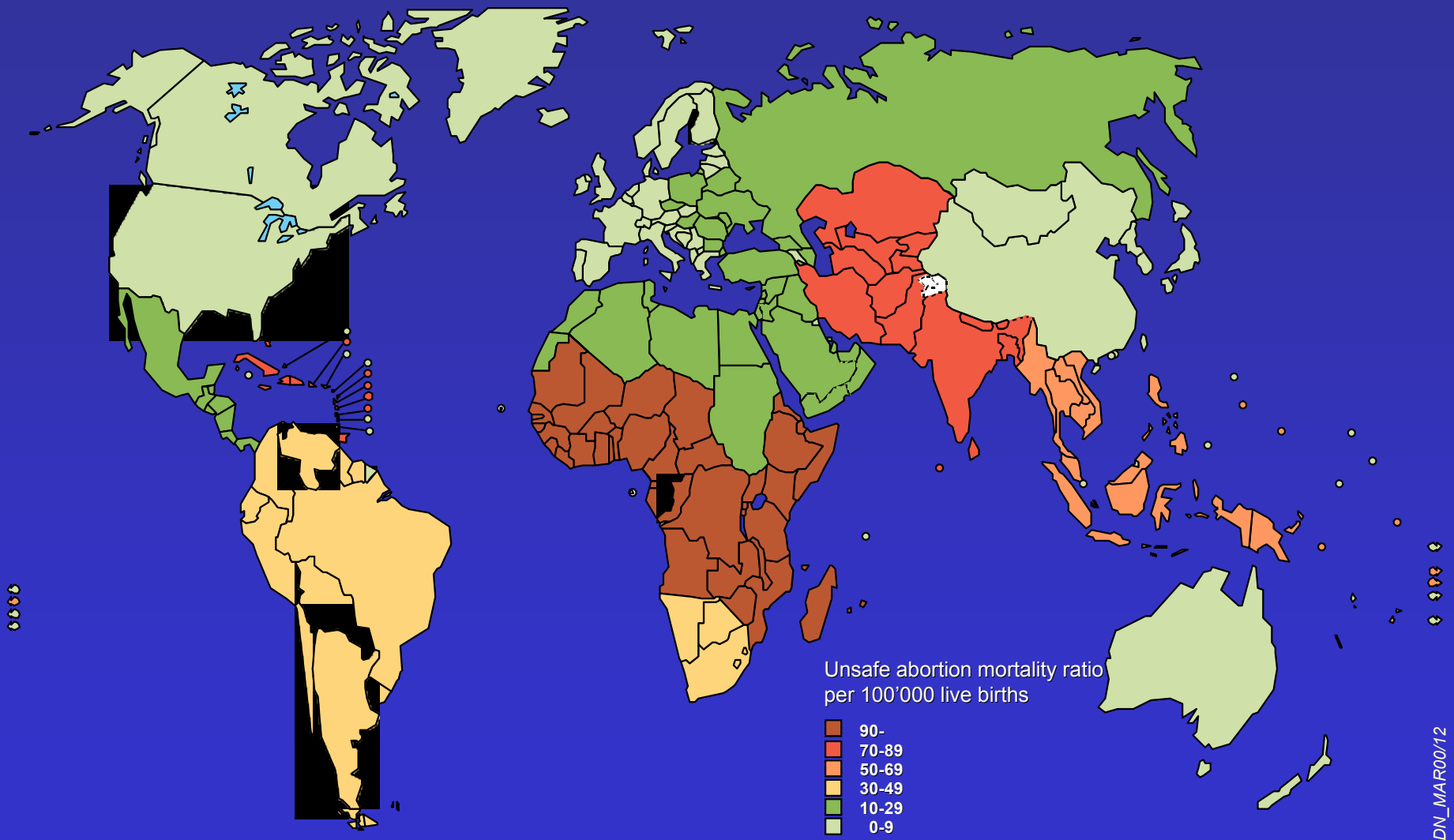
Influence of income and residence on obtaining abortions



Estimated annual incidence of unsafe abortion by UN sub-regions, 1995-2000



Estimated annual mortality due to unsafe abortion by UN sub-regions 1995-2000



Global and regional mortality due to unsafe abortion, 1995-2000

	Estimated number of unsafe abortions *(1000s)*	Estimated number of deaths due unsafe abortion	Case fatality rate *(deaths per 100 unsafe abortion procedures)*
World total	20 000	78 000	0.4
More developed regions*	900	500	<0.1
Less developed regions	19 000	77 500	0.4
Africa	5 000	34 000	0.7
Asia*	9 900	38 000	0.4
Europe	900	500	<0.1
Latin America & Caribbean	4 000	5 000	0.1
Oceania*	30	150	0.4

* Japan, Australia and New Zealand have been excluded from the regional estimates, but are included in the totals for developed regions

DEATH RATES FROM ABORTION IN DEVELOPING AND DEVELOPED COUNTRIES

Region	Deaths per 100,000 abortions
DEVELOPING[1]	**330**
AFRICA	680
SOUTH - SOUTHEAST ASIA	283
LATIN AMERICA	119
DEVELOPED	**0.2-1.2**

[1] ***Excluding China***

POLICY OPTIONS FOR REDUCING UNSAFE ABORTION

1. **HIGH QUALITY CONTRACEPTIVE SERVICES**
   - also to adolescents and unmarried

2. **EDUCATIONAL INTERVENTIONS**
   - sexuality and family life education

3. **LEGISLATIVE REFORM**

4. **SAFE ABORTION SERVICES**

Mortality risks associated with pregnancy and selected health procedures

Procedure	Deaths per 100 000 cases	
	United States of America	Developing Countries*
Legal abortion	1	4-6
Female sterilization	4	10-100
Delivery of live birth	14	250-800
Cesarean section	41	160-220
Illegal abortion**	50	100-1000
Hysterectomy	160	300-400

* Estimated ** Performed by untrained practitioners or outside medical facilities

Source: Population Crisis Committee, World abortion trends, Briefing Paper No 9 September 1982

DEVELOPMENT OF NON-SURGICAL METHODS

1972 → PROSTAGLANDINS

1982 → MIFEPRISTONE

1985 → SEQUENTIAL REGIMEN

TERMINATION OF EARLY PREGNANCY BY PROSTAGLANDINS

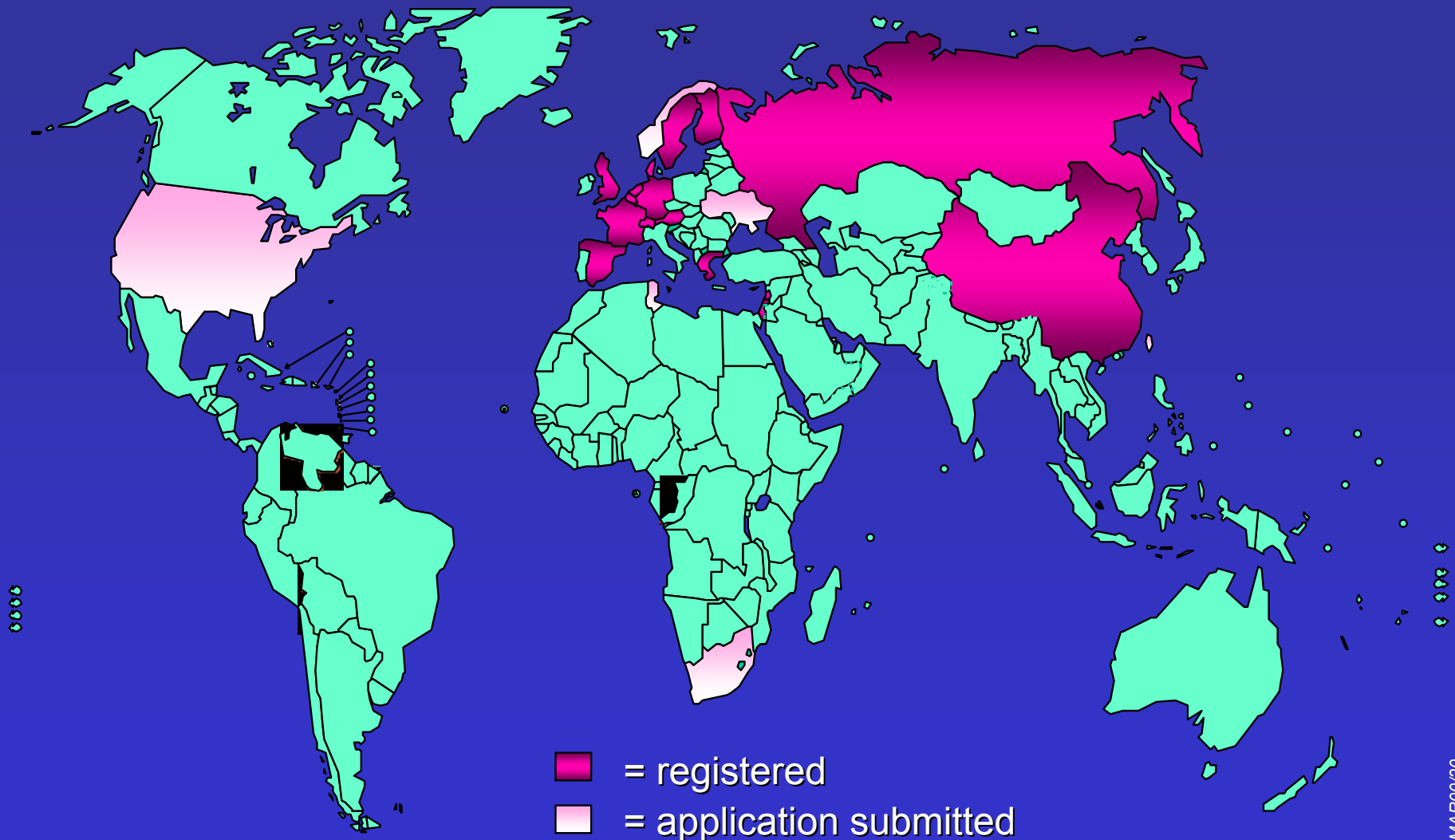
	Comparative study*			Randomized
study**	Sulprostone	Gemeprost	Meteneprost	Sulprostone
Vacuum aspiration plus 30 or	0.5mg three intervals		1mg five times at 3-h intervals 45mg 6 h later	75 or 60mg with 3-h interval
Complete abortion 94.0%	94%	92%	93%	91.1%
Incomplete abortion 2.8%	3%	5%	7%	7.4%
Pregnancy continuation 3.2%	3%	3%	0%	1.5%

PROSTAGLANDINS: SIDE EFFECTS

- Pain: 30% - 60% - 100%
- Nausea and vomiting: 20% - 30%
- Diarrhoea: 20% - 60%

Registration of Mifepristone

as of January 2000



French experience on the first 16000 women:

- **From ^{5}/1988 ⟶ ^{9}/1989**

  600mg mifepristone + gemeprost 1mg or sulprostone 0.25mg i.m.

- Efficacy

  Time lapse between mifepristone and prostaglandin: — Complete abortion rate:

< 36 hours:	92.0%
36 - 48 hours:	95.8%
> 48 hours:	93.9%

  (p=0.001)

  Emergency VA or curettage 0.8%

  Blood transfusions 0.1% (11

MISOPROSTOL

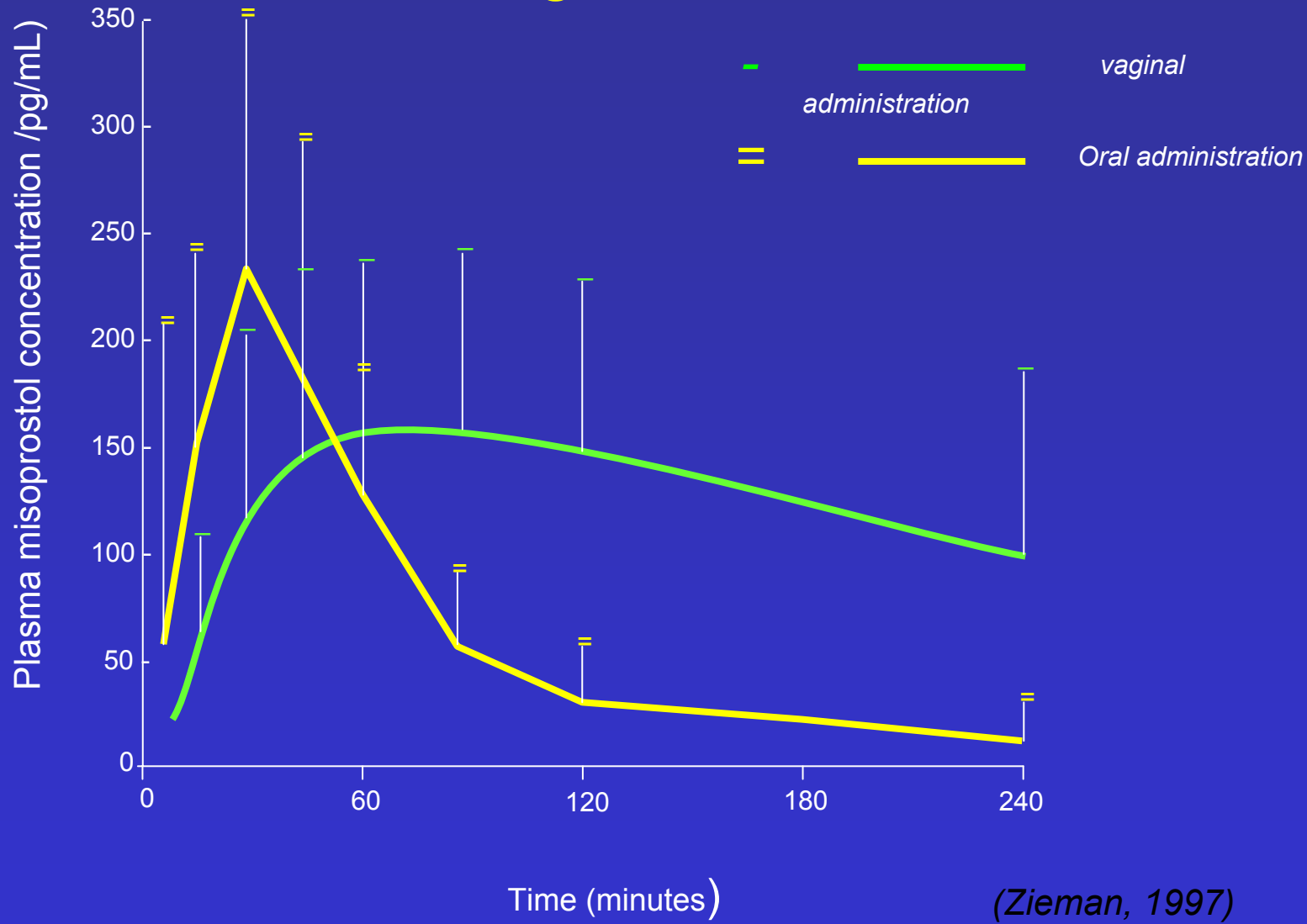
(Cytotec ®)

- synthetic analogue of naturally occurring prostaglandin E_1
- approved in > 70 countries (prevention and treatment of gastric and duodenal ulcers)
- safe and well tolerated
- tablets can be kept at room temperature when packed in aluminium blisters

OUTCOME OF TREATMENT WITH MISOPROSTOL ADMINISTERED ORALLY OR VAGINALLY

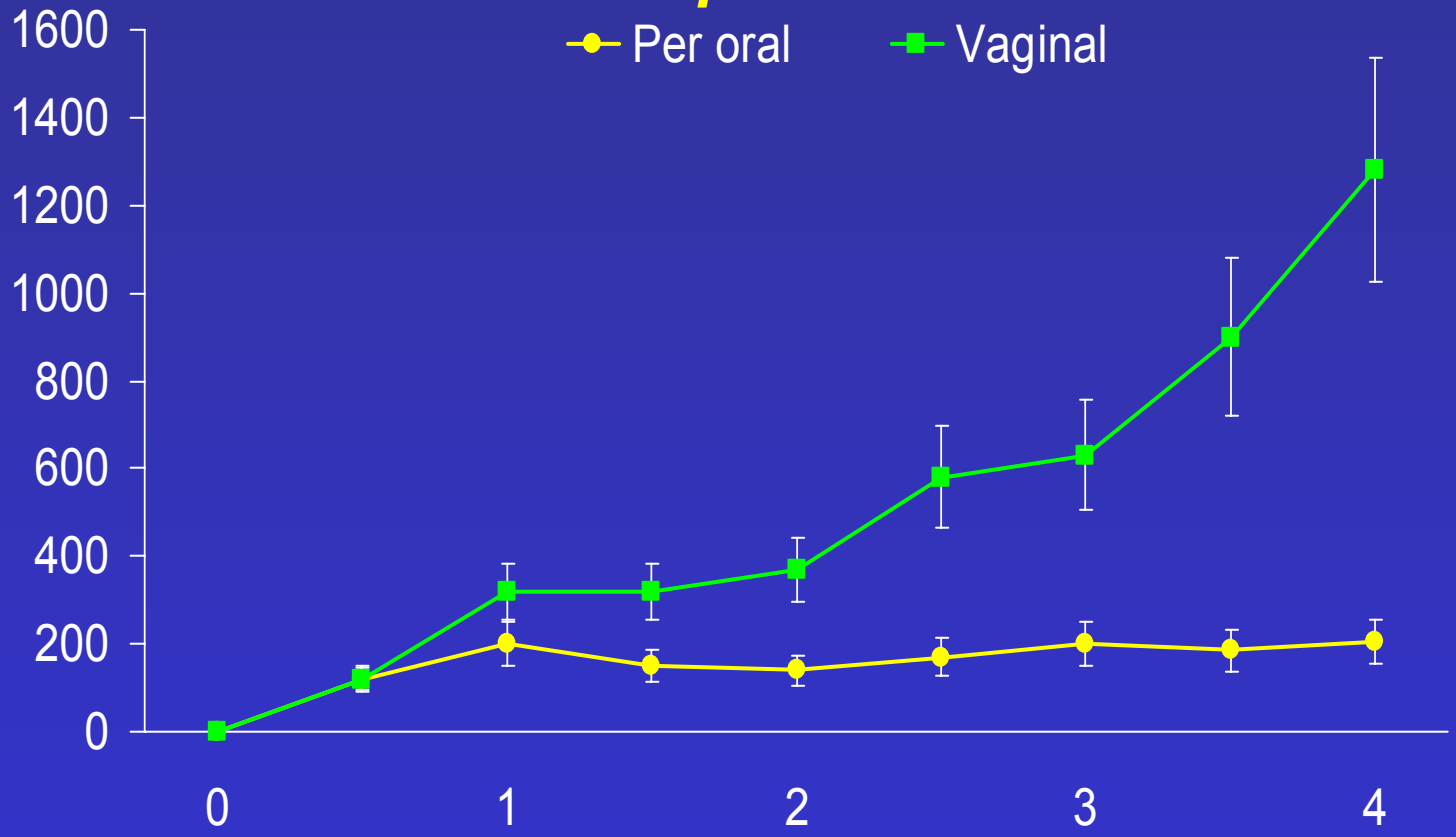
Outcome	Oral misoprostol misoprostol (N=130)	Vaginal (N=133)
	No. of women (%)	
complete abortion (95)	113 (87)	126
continued pregnancy 1)	9 (7)	1 (
missed abortion 1)	4 (3)	1 (
incomplete abortion	4 (3)	5 (

Mean plasma concentrations of misoprostol acid over time with oral and vaginal administration



(Zieman, 1997)

Uterine activity in Montevideo units (MU) after oral or vaginal administration 0.4mg of misoprostol



(Gemzell Danielsson 19

TECHNOLOGY DEVELOPMENT

1. Nonsurgical Abortion
   - Dose of Mifepristone
   - Dose and route administration of Misoprostol
   - Length of gestation
   - Service delivery
   - Acceptability/bleeding
   - Misoprostol alone regimen?
2. Surgical Abortion
   - Vacuum aspiration
   - Routine priming with Misoprostol?

ACCEPTABILITY OF MEDICAL ABORTION

- *quality of abortion services*
- *facts related to the client*
- *length of gestation (49d/63d/)*
- *current situation:*

France	34%
Scotland	40%
Sweden	35%
United Kingdom	8%

ADVANTAGES/DISADVANTAGES

- *Medical abortion*
- *no surgery (95-98%)*
- *no operating room needed*
- *no anaesthesia (pain killers may be needed)*
- *more natural*
- *cheaper*

- *longer procedure*
- *longer duration of bleeding after abortion*

- *Surgical abortion*
- *procedure quicker*
- *some clients prefer not to know what happens*

- *requires more trained personnel*
- *risk of complications (surgery, anaesthesia)*

PREFERRED REGIMEN?

DAY 1: 200mg mifepristone (one tablet)

DAY 3: 2-4 tablets of 200µg misoprostol vaginally

International Conference on Population and Development (ICPD), 1994, Cairo

"Prevention of unwanted pregnancies must always be given the highest priority and every attempt should be made to eliminate the need for abortion"…

…"In circumstances where abortion is not against the law, such abortion should be safe."